

Comparisons of Job Characteristics

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Civil Engineering Technicians (17-3022)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 57

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Civil Engineering Technicians (17-3022)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	15.6	9.7	<<	Extensive education and/or training may be required
Building and Construction	4.0	15.1	6.8	<<	Extensive education and/or training may be required
Mathematics	9.2	15.0	12.3	<	Expanded education and/or training may be required
Design	5.2	14.1	7.1	<<	Extensive education and/or training may be required
Public Safety and Security	6.9	10.6	11.1	0	Current knowledge level may be sufficient
Geography	3.9	9.0	9.7	0	Current knowledge level may be sufficient
Transportation	4.6	8.6	5.7	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 89

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Civil Engineering Technicians (17-3022)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Reading Comprehension	10.7	12.9	12.8	0	Current skill level may be sufficient
Mathematics	6.2	8.7	9.2	0	Current skill level may be sufficient
Operations Analysis	5.0	7.9	7.9	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 91			
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Civil Engineering Technicians (17-3022)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Comprehension	12.5	12.8	13.5	0	Current ability level may be sufficient
Near Vision	11.1	12.6	12.8	0	Current ability level may be sufficient
Oral Expression	12.4	12.2	13.2	0	Current ability level may be sufficient
Deductive Reasoning	10.6	11.4	11.8	0	Current ability level may be sufficient
Visualization	7.5	11.4	9.2	<	Some improvement in abilities may be required
Written Comprehension	11.0	11.4	13.9	>	Current ability level is likely sufficient
Written Expression	9.8	11.4	12.9	>	Current ability level is likely sufficient
Problem Sensitivity	11.1	10.8	11.9	>	Current ability level is likely sufficient
Mathematical Reasoning	6.3	10.3	9.1	<	Some improvement in abilities may be required
Number Facility	6.3	9.2	9.0	0	Current ability level may be sufficient
Memorization	5.6	6.9	6.9	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 72
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Civil Engineering Technicians (17-3022)		
Work Activities	Exclusivity of Activity	
Analyze scientific research data or investigative findings	27	
Communicate technical information	4	
Develop plans for programs or projects	31	
Draw maps or charts	69	
Explain complex mathematical information	30	
Inspect facilities or equipment for regulatory compliance	51	
Perform safety inspections in industrial, manufacturing or repair setting	32	
Prepare safety reports	60	
Prepare technical reports or related documentation	22	
Use chemical testing or analysis procedures	54	
Use knowledge of materials testing procedures	70	
Use knowledge of metric system	39	

Use precision measuring tools or equipment	17
Use scientific research methodology	21

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 72

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Civil Engineering Technicians (17-3022)

Tools and Technologies	Exclusivity
Chemical evaluation instruments and supplies	10
Computer data input devices	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Electrochemical measuring instruments and accessories	9
Fluid mechanics equipment	11
Humidity and moisture measuring instruments	15
Hydrological instruments	31
Industry specific software	1
Information exchange software	1
Metals and metallurgy and structural materials testing instruments	15
Meteorological instruments	16
Network applications software	1
Pipettes and liquid handling equipment and supplies	16
Sampling equipment	12
Soil measuring equipment	20

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.